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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) X-1449 US															
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on <u>October 5, 2005</u> Signature _____ Typed or printed name <u>Pat Slaback</u>	Application Number <u>10/799,183</u>	Filed <u>March 12, 2004</u>															
	First Named Inventor <u>Scott J. Campbell</u>																
	Art Unit <u>3621</u>	Examiner <u>Pierre E. Elisca</u>															
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <table border="0"><tr><td><input type="checkbox"/> applicant/inventor.</td><td rowspan="3"> _____ Signature <u>Kim Kanzaki</u> _____ Typed or printed name</td></tr><tr><td><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</td><td>_____ Telephone number</td></tr><tr><td><input type="checkbox"/> attorney or agent of record. Registration number _____</td><td><u>408-879-6149</u> _____ Date</td></tr><tr><td><input checked="" type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 <u>37,652</u></td><td colspan="3"><u>October 5, 2005</u> _____ Date</td></tr><tr><td colspan="4"><p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p><p><input type="checkbox"/> *Total of _____ forms are submitted.</p></td></tr></table>				<input type="checkbox"/> applicant/inventor.	 _____ Signature <u>Kim Kanzaki</u> _____ Typed or printed name	<input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)	_____ Telephone number	<input type="checkbox"/> attorney or agent of record. Registration number _____	<u>408-879-6149</u> _____ Date	<input checked="" type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 <u>37,652</u>	<u>October 5, 2005</u> _____ Date			<p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p> <p><input type="checkbox"/> *Total of _____ forms are submitted.</p>			
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This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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X-1449 US
10/799,183

PATENT
Conf. No.: 8162

IN THE UNITED STATES PATENT OFFICE

Applicants: Scott J. Campbell et al.

Assignee: Xilinx, Inc.

Title: "PARALLEL KEYSTREAM DECODER"

Serial No.: 10/799,183

File Date: 03/12/2004

Examiner: Pierre E. Elisca

Art Unit: 3621

Docket No.: X-1449 US

Conf. No.: 8162

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PRE-APPEAL CONFERENCE BRIEF

Dear Sir:

This Brief is submitted for the Pre-appeal Conference requested in the Notice of Appeal with which this Brief is submitted.

Grounds of Rejection

A. Claims 1-18 stand rejected under 35 USC §103(a) as being unpatentable over "Park" (US Patent No. 5,757,909 to Park) in view of "Luyster" (US Patent No. 6,578,150 to Luyster).

B. Claims 1 and 7 stand rejected under 35 USC §101 as being directed to non-statutory subject matter.

Argument

A. The rejection of claims 1-18 should be reversed because the Examiner has not established a *prima facie* case of obviousness of the claims under 35 U.S.C. §103(a) over Park in view of Luyster.

A *prima facie* case of obviousness of claims 1-18 has not been established because all the limitations are not shown to be suggested by the combination, and a proper motivation for modifying Park with teachings of Luyster has not been provided. The Examiner's alleged correspondences of elements of the Park-Luyster combination to the claim limitations are clearly in error. In addition, the Examiner omits an element needed for a *prima facie* case of obviousness by failing to provide evidence that supports making the Park-Luyster combination.

Claims 1, 7, and 12

Claim 1 includes limitations related to decoding a keystream, and the limitations as to how the keystream is decoded are not suggested by the Park-Luyster combination. The cited teachings of Park and Luyster generally reference encryption and decryption techniques, and Park appears to detect an encrypted keystream (col. 10, l. 8-24). However, neither of the references appears to teach the claimed method of how a keystream is decoded, and therefore, the rejection is clearly in error.

Park's FIGs. 7 and 9 show a keystream input to a smart card and processor. However, neither the corresponding description in Park, nor the cited teachings of Luyster in any apparent manner suggest the specific claim limitations for decoding a keystream. For example, the limitations include generating a set of test bits. The Office Action cites Luyster as teaching these limitations. However, the cited teachings of Luyster contain no apparent elements that correspond to generating test bits. The responses to the Office Actions requested an explanation of the specific elements of Luyster which were perceived to suggest the claimed generating test bits. However, no explanation has been provided and the allegation that Luyster's teachings suggest the claim limitations appears to be clearly in error.

Other limitations of claim 1 not shown to be suggested by Park include generating a set of attempted keystream bits from differences between the test bits and the cipher bits, and generating, from a current seed, a set of current keystream bits from a parallel feedback shift register. No specific elements of the Park-Luyster combination have been cited as corresponding to these limitations, and none of the generally cited teachings of Park and Luyster in any apparent manner correspond to these limitations. Therefore, the Office Action is clearly in error in alleging that the

Park-Luyster suggests these limitations.

Other limitations of claim 1 further refine the limitations described above. Thus, the Office Action does not show that the Park-Luyster combination suggests all the limitations of claim 1.

Claims 7 and 12 include limitations similar to those of claim 1, and the rejection of these claims over the Park-Luyster combination is clearly in error for at least the reasons set forth above. Furthermore, the Office Action fails to allege that any of the additional limitations of claims 7 and 12 over those of claim 1 are suggested by specific teachings or correspond to specific elements of the Park-Luyster combination.

The Examiner has omitted an element needed to establish a *prima facie* case of obviousness because no evidence has been provided to support a motivation to combine Luyster with Park. The alleged motivation for combining Luyster with Park is conclusory and improper. The alleged motivation states that "it wiuld [sic] have been obvious ... to modify the teaching of Park by including the limitation detailed above as taught by Luyster because this would prevent illegal user from decoding digital keystreams." This alleged motivation is improper because no evidence is presented to suggest that Park's approach is in any way prone to decoding of a keystream by an illegal user. Furthermore, no evidence is presented to suggest that Luyster's approach is in any way an improvement over Park's approach. Further still, the Office Action presents no evidence and it is not apparent which elements of Park are to be modified and which elements of Luyster are to be used in the modification. Without such evidence it is not apparent that the alleged modification could be achieved with a reasonable likelihood of success. Therefore, the alleged motivation is improper and does not support a *prima facie* case of obviousness.

Claims 2-3, 6, 8-9, 13-16

Claims 2-3, 6, 8-9, 13-16 include further limitations that refine the limitations of independent claims 1, 7, and 12 as described above. Furthermore, the claims include additional limitations that the Office Action does not address in rejecting the claims. Therefore, the Examiner has omitted essential elements needed to support a case of *prima facie* obviousness.

Claim 18

Claim 18 includes limitations directed to an n -bit parallel feedback shift register including n single-bit registers in an FPGA and n function generators in the FPGA. No elements of the Park-Luyster combination are alleged to suggest these limitations, and the limitations do not appear to be suggested by the combination. Therefore, the Examiner has omitted essential elements needed to support a case of *prima facie* obviousness.

The rejection of claims 1-3, 6-9, 12-16, and 18 over the Park-Luyster combination should be reversed because the allegation that the generally cited teachings of the Park-Luyster combination suggest the claim limitations is clearly in error, and the alleged motivation for making the combination does not support a *prima facie* case of obviousness.

B. The rejection of claims 1 and 7 as being directed to unpatentable subject matter should be reversed because the Examiner has failed to present evidence to establish a *prima facie* case that the invention is unpatentable under 35 USC §101.

The Examiner has failed to present evidence that shows that claims 1 and 7 are directed solely to an abstract idea or to manipulation of abstract ideas or do not produce a useful result. The limitations of claims 1 and 7 are clearly not solely directed to an abstract idea, clearly not solely directed to manipulation of an abstract idea, and clearly produce a useful result.


Claims 1 and 7 specifically recite use of a parallel feedback shift register in decoding a keystream, and the processing of the cipher bits, test bits, and keystream bits would be understood to be useful, concrete, and tangible to those skilled in the art.

Since no evidence has been presented to indicate that the claims are directed solely to an abstract idea or to manipulation of abstract ideas or do not produce a useful result, the Examiner has not set forth an element needed to establish a *prima facie* case that the invention is directed to non-statutory subject matter, and the rejection should be reversed.

Conclusion

In view of the above, Appellants submit that the rejections are improper, the claimed invention is patentable, and that the rejections of claims 1-18 should be reversed. Appellants respectfully request reversal of the rejections as applied to the appealed claims and allowance of the entire application.


Respectfully submitted,



Kim Kanzaki
Attorney for Applicants
Reg. No. 37,652

*I hereby certify that this correspondence is being deposited with the United States Postal Service as **first class mail** in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on October 5, 2005.*

Pat Slaback
Name



Signature